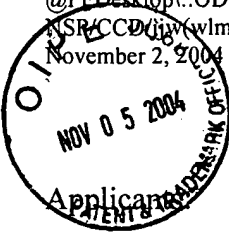


ITW



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Yi Hua Ma, Ivan P. Mardilovich and Erik E. Engwall

Application No.: 10/804,847

Group Art Unit: 1724

Filed: March 19, 2004

Examiner: Not assigned

Confirmation No.: 7500

Title: METHOD FOR FABRICATING COMPOSITE GAS SEPARATION MODULES

CERTIFICATE OF MAILING OR TRANSMISSION	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:	
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INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted:

☐ under 37 CFR 1.129(a), or

(First/Second submission after Final Rejection)

☒ under 37 CFR 1.97(b), or

(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).

☐ under 37 CFR 1.97(c) together with either:

☐ a Statement under 37 CFR 1.97(e), as checked below, or

☐ a \$180.00 fee under 37 CFR 1.17(p), or

(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)

☐ under 37 CFR 1.97(d) together with:

☐ a Statement under 37 CFR 1.97(e), as checked below, and

☐ a \$180.00 fee under 37 CFR 1.17(p), or

(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

☐ under 37 CFR 1.97(I):

Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.

(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
 - ☒ Copies of the cited references (AL-AQ, AR-AZ and AR2) are enclosed.
 - ☒ Since this application was filed after June 30, 2003, copies of issued U.S. patents and published U.S. applications are not required and are not being provided.
 - ☐ Copies of the cited references are enclosed except those entered in prior application, U.S. Application No. [], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]
 - ☒ The listed references (AB, AE, AH, AE3 and AL-AP) were cited in the enclosed International Search Report in a counterpart foreign application.
 - ☒ The "concise explanation" requirement (non-English references) for references AM, AP and AQ under 37 CFR 1.98(a)(3) is satisfied by:
 - ☐ the explanation provided on the attached sheet.
 - ☐ the explanation provided in the Specification.
 - ☒ submission of the enclosed International Search Report for references AM and AP.
 - ☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
 - ☒ the enclosed English language abstract for reference AQ.

[X] Applicant requests that the following non-published pending applications be considered:

Examiner's
Initials

U.S. Patent Application No. 10/804,846 by Yi Hua Ma, Ivan P. Mardilovich and Erik E. Engwall, filed March 19, 2004, Docket No.: 1021.2005-001.

U.S. Patent Application No. 10/804,848 by Yi Hua Ma, Ivan P. Mardilovich and Erik E. Engwall, filed March 19, 2004, Docket No.: 1021.2004-001.

U.S. Patent Application No. 10/836,088 by Yi Hua Ma, Ivan P. Mardilovich and Erik E. Engwall, filed April 30, 2004, Docket No.: 1021.2007-001.

Examiner

Date

[X] A copy of each above-cited application, including the current claims, is enclosed.

[] A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

[] A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.

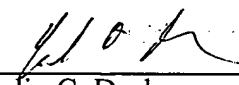
[] Please charge Deposit Account 08-0380 in the amount of \$[]. A copy of this Statement is enclosed.

[X] Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

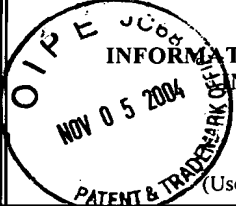
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Concord, MA 01742-9133

Dated: 11/2/04

PTO-1449 REPRODUCED  INFORMATION DISCLOSURE CITATION IN AN APPLICATION November 2, 2004 (Use several sheets if necessary)	ATTORNEY DOCKET NO. 1021.2006-001		APPLICATION NO. 10/804,847	
	FIRST NAMED INVENTOR Yi Hua Ma		FILING DATE March 19, 2004	
	EXAMINER N/A	CONFIRMATION NO. 7500	GROUP 1724	

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
	AA	2,958,391	11-01-1960	deRosset
	AB	3,241,298	03-22-1966	Pierce
	AC	3,413,777	12-03-1968	Langley, <i>et al.</i>
	AD	3,428,476	02-18-1969	Langley, <i>et al.</i>
	AE	3,717,525	02-20-1973	Bültemann
	AF	4,496,373	01-29-1985	Behr, <i>et al.</i>
	AG	4,589,891	05-20-1986	Iniotakis, <i>et al.</i>
	AH	4,689,150	08-25-1987	Abe, <i>et al.</i>
	AI	5,049,167	09-17-1991	Castro, <i>et al.</i>
	AJ	5,139,541	08-18-1992	Edlund
	AK	5,205,841	04-27-1993	Vaiman
	AA2	5,215,729	06-01-1993	Buxbaum
	AB2	5,217,506	06-08-1993	Edlund, <i>et al.</i>
	AC2	5,258,339	11-02-1993	Ma, <i>et al.</i>
	AD2	5,259,870	11-09-1993	Edlund
	AE2	5,358,553	10-25-1994	Najjar, <i>et al.</i>
	AF2	5,393,325	02-28-1995	Edlund
	AG2	5,451,386	09-19-1995	Collins, <i>et al.</i>
	AH2	5,449,848	09-12-1995	Itoh
	AI2	5,498,278	03-12-1996	Edlund
	AJ2	5,614,001	03-25-1997	Kosaka, <i>et al.</i>
	AK2	5,652,020	07-29-1997	Collins, <i>et al.</i>
	AA3	5,672,388	09-30-1997	McHenry, <i>et al.</i>
	AB3	5,738,708	04-14-1998	Peachey, <i>et al.</i>
	AC3	5,782,959	07-21-1998	Yang, <i>et al.</i>
	AD3	5,782,960	06-21-1998	Ogawa, <i>et al.</i>

EXAMINER	DATE CONSIDERED
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PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.
1021.2006-001APPLICATION NO.
10/804,847INFORMATION DISCLOSURE CITATION
IN AN APPLICATIONFIRST NAMED INVENTOR
Yi Hua MaFILING DATE
March 19, 2004

November 2, 2004

EXAMINER
N/ACONFIRMATION NO.
7500GROUP
1724

(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
	AE3	5,895,769	04-20-1999	Lai
	AF3	5,904,754	05-18-1999	Juda, <i>et al.</i>
	AG3	6,086,729	07-11-2000	Bredesen, <i>et al.</i>
	AH3	6,152,987	11-28-2000	Ma, <i>et al.</i>
	AI3	6,152,995	11-28-2000	Edlund
	AJ3	6,183,542	06-06-2001	Bossard
	AK3	6,267,801	07-31-2001	Baake, <i>et al.</i>
	AA4	6,372,363	06-16-2002	Krueger
	AB4	6,379,524 B1	04-30-2002	Lee, <i>et al.</i>
	AC4	6,419,728	06-12-2002	Edlund
	AD4	6,475,268	11-05-2002	Thornton
	AE4	6,547,858	04-15-2003	Edlund, <i>et al.</i>
	AF4	6,596,057	07-22-2003	Edlund, <i>et al.</i>
	AG4	2002/00838829 A1	07-04-2002	Edlund, <i>et al.</i>

EXAMINER

DATE CONSIDERED

APPLICATION NO.
10/804,847

FILING DATE
March 19, 2004

EXAMINER
N/A

CONFIRMATION NO.
7500

GROUP
1724

INFORMATION DISCLOSURE CITATION IN AN APPLICATION

November 2, 2004

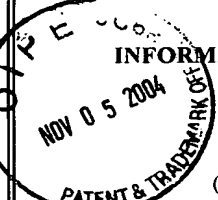
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FOREIGN PATENT DOCUMENTS

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EXAMINER

DATE CONSIDERED

PTO-1449 REPRODUCED		ATTORNEY DOCKET NO. 1021.2006-001		APPLICATION NO. 10/804,847	
 <p>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</p> <p>November 2, 2004</p> <p>(Use several sheets if necessary)</p>		FIRST NAMED INVENTOR Yi Hua Ma		FILING DATE March 19, 2004	
		EXAMINER N/A		CONFIRMATION NO. 7500	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Gryaznov, V. M., "Metal Containing Membranes for the Production of Ultrapure Hydrogen and the Recovery of Hydrogen Isotopes," <i>Separation and Purification Methods (now Separation and Purification Reviews)</i> , 29(2):171-187 (2000).
AS	Gryaznov, V. M., <i>et al.</i> , "Preparation and catalysis over Palladium Composite Membranes," <i>Applied Catalysis A: General</i> , 96:15-23 (1993).
AT	Ma, Y. H., <i>et al.</i> , "Characterization of Intermetallic Diffusion Barrier and Alloy Formation for Pd/Cu and Pd/Ag Porous Stainless Steel Composite Membranes," <i>I & EC Research</i> , 43:2936-2945 (2004).
AU	Ma, Y. H., <i>et al.</i> , "Thin Composite Palladium and Palladium/Alloy Membranes for Hydrogen Separation," <i>Ann. N.Y. Acad. Sci.</i> , 984:346 (2003).
AV	Mardilovich, I. P., <i>et al.</i> , "Dependence of Hydrogen Flux on The Pore Size and Plating Surface Topology of Asymmetric Pd-Porous Stainless Steel Membranes," <i>Desalination</i> , 144:85-89 (2002).
AW	Nam, S.-E., <i>et al.</i> , "Hydrogen Separation by Pd Alloy Composite Membranes," <i>J. Membrane Sci.</i> , 192:177-185 (2001).
AX	Ozaki, T., <i>et al.</i> , "Preparation of Palladium-coated V and V-15 Ni Membranes for Hydrogen Purification by Electroless Plating Technique," <i>Int. J. Hydrogen Energy</i> , 28:297 (2003).
AY	Roa, F., "Preparation and Characterization of Pd-Cu Composite Membranes for Hydrogen Separation," <i>Chem. Eng. J.</i> , 93:11 (2003).
AZ	Roa, F., <i>et al.</i> , "The Influence of Alloy Composition on The H ₂ Flux of Composite Pd-Cu Membranes," <i>Desalination</i> , 147:411-416 (2002).
AR2	Shu, J., <i>et al.</i> , "Structurally Stable Pd-Ag Alloy Membranes: Introduction of a Diffusion Barrier," <i>Thin Solid Films</i> , 286:72-79 (1996).

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